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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,031	06/30/2003	Fumio Takahashi	239434US8	7185
22850	7590	06/02/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			STEIN, JAMES D	
1940 DUKE STREET			ART UNIT	
ALEXANDRIA, VA 22314			PAPER NUMBER	

2874

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/608,031		TAKAHASHI ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	James D. Stein		2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 4-22-05
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 11-22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-10 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>0704</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This Office Action is responsive to the election of group I claims 1-10 filed 4/22/05 as per the restriction requirement in the previous Office Action mailed on 3/22/05. Claims 11-22 have been withdrawn.

Applicant's election with traverse of claims 1-10 (group I) in the reply filed on 4/22/05 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application would not place a serious burden on the Examiner. This is not found persuasive because the search for a method of manufacturing the fiber according to group II would not completely overlap the search for the optical fiber according to the claims of group I.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-4 merely describe the optical fiber in terms of it's resultant behavior and fail to recite limitations which are specific enough for a person of ordinary skill in the art to identify the metes and bounds of the optical fiber which would be encompassed by an issued Patent. It seems that the invention lies in the design of an optical fiber having a combination of characteristics (as in claims 5-10) that allow the fiber to behave in the manner set forth in claims 1-4.

*Allowable Subject Matter*

Claims 5-10 are allowed. None of the cited prior art discloses or suggests:

An optical fiber having an MFD of 8 micrometer ( $\mu\text{m}$ ) or more at 1310 nm, zero dispersion wavelength out of a wavelength range of 1280 to 1324 nm, a dispersion in said wavelength range of 0.1 to 8.0 picosecond/nanometer/kilometer (ps/nm/km) in absolute value, a dispersion slope of 0.1 picosecond/nanometerz/kilometer (ps/nmz/km) or less, a cutoff wavelength determined according to a 22 m method not more than 1270 nm and an average transmission loss at the wavelength of 1310 nm of 0.4 dB/km or less.

[USPAT 6,853,784] to Shimizu et al. teaches an average transmission loss of 0.4 dB/km at a wavelength of 1310 nm and a dispersion slope of 0.1 in a range of 1300nm to 1625nm, which overlaps the range claimed by applicant. However, Shimizu et al. teach a cut off wavelength according to a 22m method of 1300nm or less, which is more than 1270nm as claimed by applicant. Shimizu et al. do not teach a mode field diameter of 8 micrometers or more at a wavelength of 1310nm, but rather a mode field diameter of 9.4 micrometers at a wavelength of 1550nm. Also, Shimizu et al. do not teach dispersion in the range of 0.1 to 8.0 ps/nm/km in the wavelength range of 1280nm to 1324nm. Shimizu teaches the dispersion of the fiber to range from 0.1ps/nm/km to 5.5ps/nm/km at a wavelength of 1383 nm (see also Fig. 4), which is beyond the wavelength range specified by applicant. Furthermore, Shimizu et al. do not teach a zero dispersion wavelength with in the range of 1280-1324nm. For these reasons, the claimed invention is patentably distinct from the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. [USPAT 6,466,721] Tsukitani et al, [USPATS 6,470,126 and 6,591,048] to Mukasa, which disclose related optical fibers with similar transmission performance characteristics.

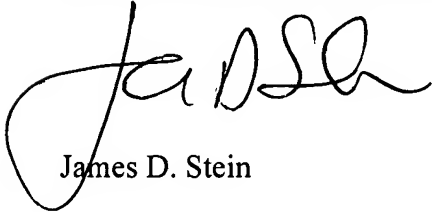
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Stein whose telephone number is (571) 272-2132. The examiner can normally be reached on M-F (8:00am-4:30pm).

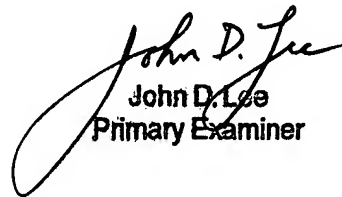
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2874

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "J. D. Stein", with a large, stylized initial "J" that loops around the first part of the name.

James D. Stein

A handwritten signature in black ink, appearing to read "John D. Lee", with a large, stylized initial "J" that loops around the first part of the name.  
John D. Lee  
Primary Examiner